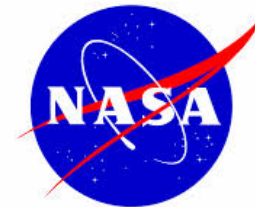# False Alerts, Registration and SARSAT Outreach Analysis

SARSAT Beacon Manufacturers Workshop 2018
LT Aaron D Colohan
NOAA
Operations Officer

Old Topic, New Ideas

- This is a continuing effort built upon the excellent work started by CAPT L.T. Yarbrough USCG (RET) in 2008 concerning EPIRB false alerts

- The launching of MEOSAT has significantly improved COSPAS-SARSAT coverage…and thus significantly increased non-distress alerts that were missed in the past
- Search and Rescue is inherently dangerous and expensive

What's the Problem with False Alerts?
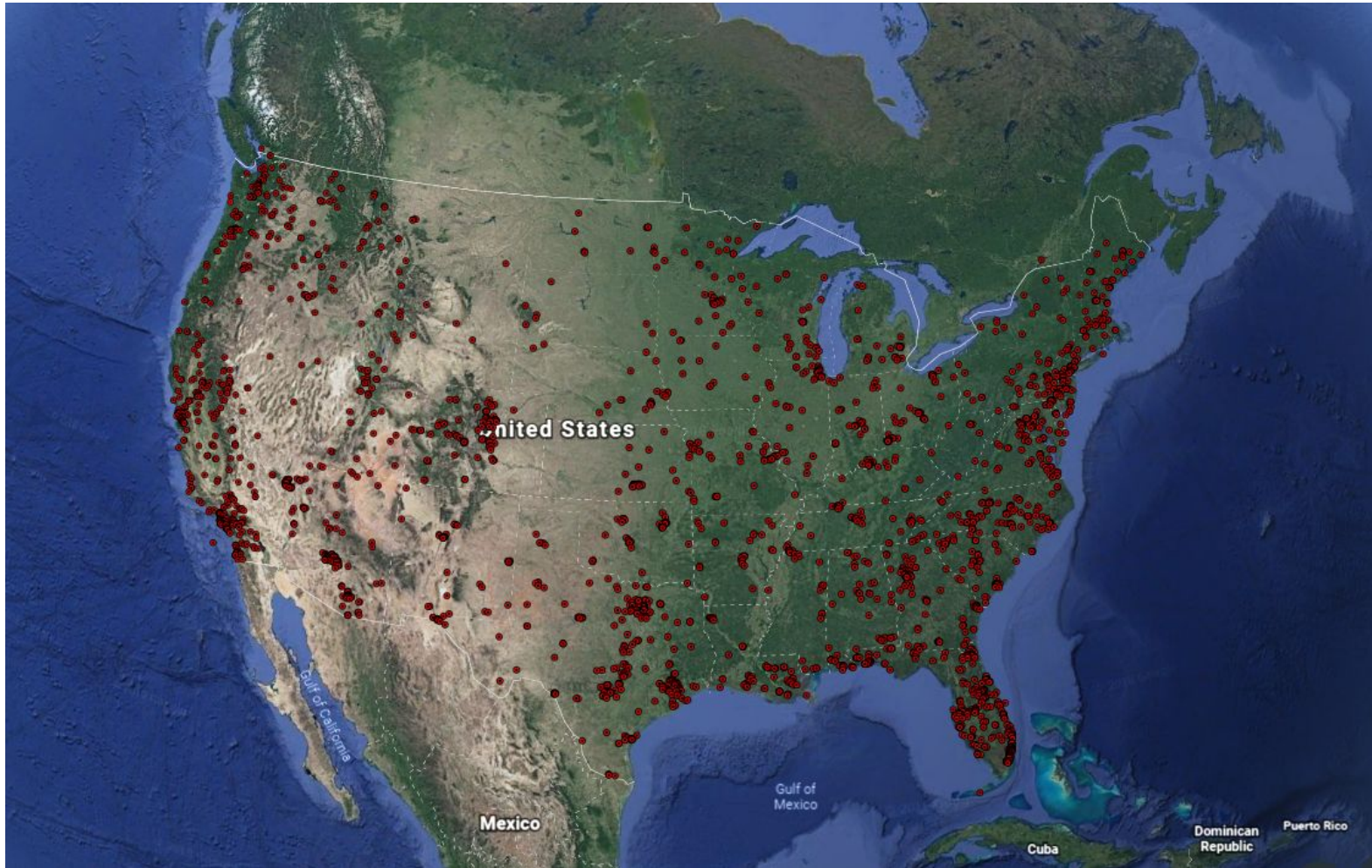
- False Alerts:
    - Waste SAR resources and funds
    - Frustrate SAR personnel
    - Adversely affect SAR personnel's ability to respond to actual distress
- Each activation is treated as a distress by the appropriate RCC until it can be confirmed as "distress" or "non-distress."

- The USMCC detected 9,257 ELT false activations in 2017:
  121 of ELT activations were due to distress (98.7%)

    - Where the false activation reason was provided, 94% (2,983 of 3,166) of ELT activations were reported as being due to mishandling.

- The USMCC detected 6,336 EPIRB false activations in 2017:
  82 of EPIRB activations were due to distress (98.8%)

    - Where the false activation reason was provided, 42% (434 of 605) of EPIRB activations were reported as being due to mishandling.

False Alerts:
Non-Distress Beacon Counts
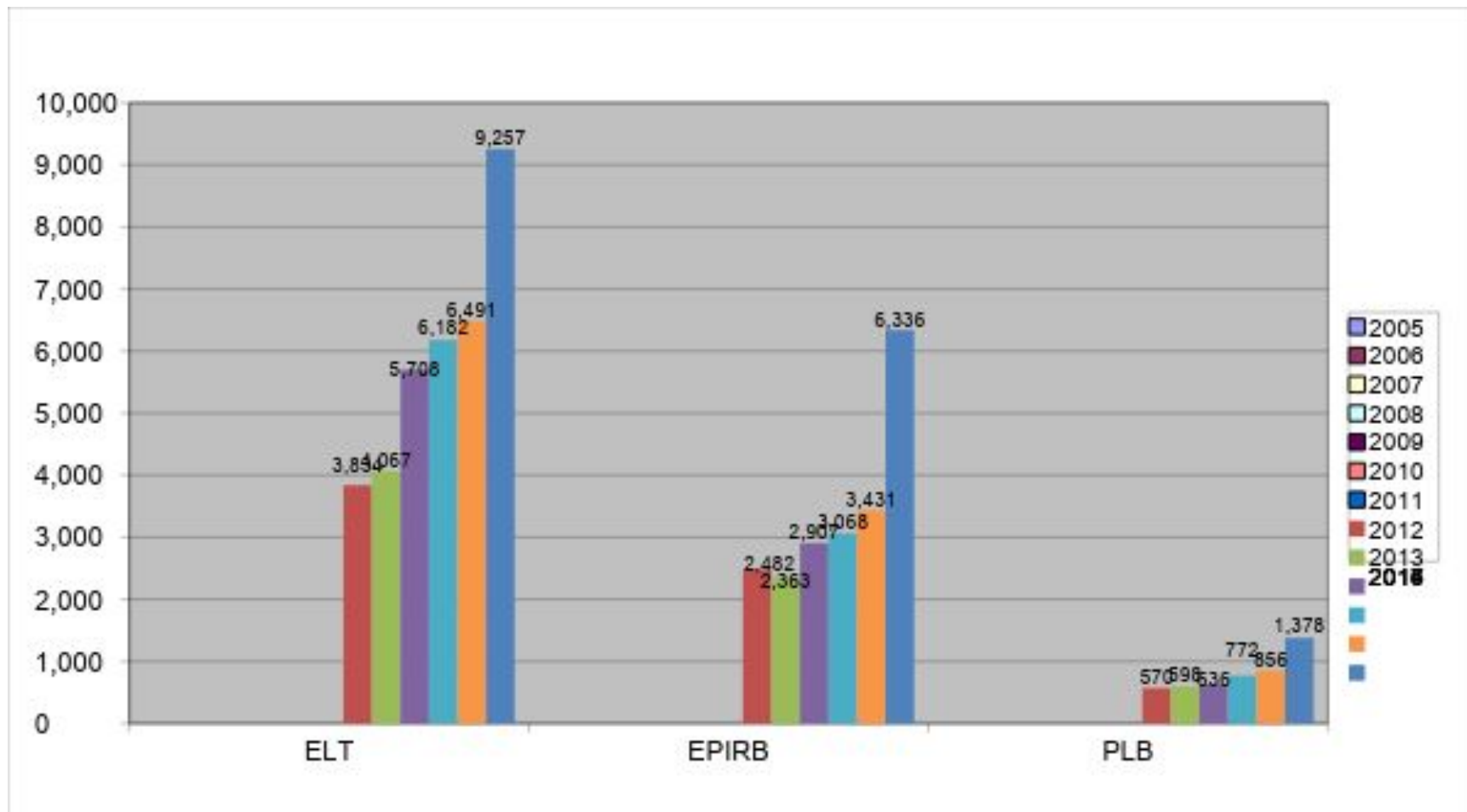
CONUS distribution of False Alerts
Jan to Sep 2018

False Alert Rate by Beacon Type vs. Registrations by Beacon Type 2017

ELTs

% of Total False Alerts	55%
% of Total Beacons Registered that are ELTs	18%

EPIRBs

% of Total False Alerts	37%
% of Total Beacons Registered that are EPIRBs	42%

PLBs

% of Total False Alerts	8%
% of Total Beacons Registered that are PLBs	40%

Aviation Team of Experts (ATE)

- Started by LTjg Nate Gillman (NOAA)
- Have had three meetings since May 2018
- Includes many partners within the COSPAS-SARSAT community
- Primary goal is to increase awareness and decrease the number of false alerts along with improving registration

Reasons for ELT False Alerts

Based on discussions with aircraft operators, aircraft mechanics, aircraft owner associations, and ELT manufacturers, the main cause of ELT false alerts is testing. It appears that ELTs are improperly activated in *operational* mode rather than in *self-test* mode, and that test conductors follow inappropriate test procedures because they do not know which ELT model they are testing or model-specific instructions are unavailable when ELTs are tested.

So let's all help the public and make it easy for them to understand how to test their ELTs!

Action Items from ATE meeting

- **Public outreach including posters, articles maintaining the discussion**
- **Reach out to manufacturers to assist in education, possible incentives, email interaction with the registration process**
- **Looking into updating CFRs concerning 406MHz references**
- **Align information across the spectrum to ensure an accurate explanation of the COSPAS-SARSAT system**

Outreach Events

- Oshkosh

- Miami Boat Show

- Beacon Manufacturers Workshop

- Any opportunity to interact with the Public concerning SARSAT

- Aviation Team of Experts

Importance of Registration
Register online at beaconregistration.noaa.gov

- **Digital data transmitted by beacon provides nationality and type of beacon and aids in tracking.**

- **Emergency contact information and home port are listed in registration**

- **Tail number and identifying information can be encoded into the beacon**

- **Registration can include information about the owner/operator, specifics on aircraft or vessel, capability of the beacon and/or medical concerns of the owner. This information allows for a more coordinated, timely and prepared search and rescue response by SAR authorities.**

- **Often, false alerts are resolved prior to dispatching limited search and rescue resources, protecting those valuable resources for actual cases, saving tax dollars, and protecting search and rescue crews.**

Ideas for ELT Testing outreach

ELT manufacturers help us create quick guides that are easy to read and understand—correct and concise.

The new quick guides undergo testing with the public at the Experimental Aircraft Association (EAA) AirVenture show in Oshkosh, Wisconsin

Beacon manufacturers and NOAA SARSAT create ELT testing pages with pictures of ELTs, quick guides, and manuals for ELTs to help personnel identify and utilize proper steps for testing their ELTs.

Create short educational videos about testing and importance of false alerts

Any Ideas to help increase registration and decrease false alerts are thoroughly encouraged to be shared

All ELT Manufacturers are encouraged to participate in this initiative.
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Discussion/Questions?

- Contact Information

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